

Thatched Roof Fire Safety



WARWICKSHIRE
FIRE & RESCUE SERVICE

This booklet has been produced as a useful guide for householders to help prevent a fire occurring. Keep this guide in a safe place and pass it to the new occupier should you move.

Although thatch fires are not common, the thatch is designed to repel water which makes extinguishing such fires difficult.

“Prevention is essential, detection is nearly always too late”

Precautions

Solid Fuel Stoves

Modern enclosed solid fuel appliances are designed to burn at a much increased temperature to promote a more efficient 'clean burn'. Solid fuel stoves can generate flue gas temperatures in excess of 300°C to 600°C. When fitted into old chimneys with only a four inch layer of brick between the flue, this can result in thatch vulnerability to heat transfer.

Chimney fires

A chimney fire can occur in any home with a working flue. Soot is not merely a bi-product of burning, it is a combustible material in its own right. A soot lined chimney is lined with fuel just waiting to burn and the structure can be significantly damaged. In a thatched property the conventional chimney fire carries the additional risk of igniting the roofing material.

Seasoned Wood

The combustion products from burning sap in 'green' wood are the main cause of tar deposits within a chimney.

The benefits of using properly seasoned wood are:

- **The sap and tar content is substantially reduced.**
- **Wood with a lower sap content gives off more heat.**
- **Better value for money.**
- **Reduction of tar deposit in the chimney.**



Stack wood outside where it is exposed to the wind and sun. The wood should either be stored under a shelter or the top layer should be covered to protect the stack against excessive rain.

Storing wood inside will result in 'sweating' and any sap drawn to the cut surface of the wood will condense on the surface as opposed to being taken away.

Height of a Chimney

A chimney with only a small section of visible stack is likely to indicate deep thatch. Raising the height of the chimney does not reduce the risk of fire. The risk of fire is increased in proportion to the depth of thatch that is in contact with the chimney. More than one metre of thatch around a chimney can be a potential hazard. At the time of re-thatching, ensure recent layers of thatch are removed to reduce the risk. The recommended minimum height specified in the Building Regulations 2000 for a chimney is 1.8 metres high.

Safety Devices

Tar removers - The build-up of tar deposits within the flue can increase the risk of a chimney fire. There are chemical products available that can be applied to the embers of the hearth fire or firebox in a stove to dry out the tar deposits in the flue and cause them to disintegrate.

Advice & Information

Chimneys

Chimneys should be checked or surveyed to ensure that they are structurally sound, well-maintained and able to cope with the demands of modern heating appliances.

The following key points should be considered:

- **Ensure that chimneys are regularly swept by an experienced and qualified chimney sweep who should be able to identify potential problems at an early stage.**
- **If a chimney lining has been installed it should be regularly inspected, especially when the main fuel is wood, as tar deposits are highly combustible and corrosive.**
- **A qualified chimney engineer can identify and help address potential hazards.**
- **A number of different types of liner are available to address the risk of heat transfer from the flue to the thatch.**
- **Only a competent chimney engineer, who understands the special risks associated with thatched properties, should install any lining.**

For further technical information on chimney safety visit :

- The Guild of Master Sweeps - www.guild-of-master-sweeps.co.uk
- The National Association of Chimney Sweeps - www.nacs.org.uk
- The Association of Professional & Independent Chimney Sweeps - www.apics.org.uk

Faulty Chimneys

Old or poorly maintained chimneys can deteriorate to the point where smoke and hot gases can escape from the chimney into the upper rooms, the roof space, or directly into the thatch.

Vital signs to look out for that may indicate a problem:

- **Staining of the plasterwork or wallpaper around the chimney breast.**
- **Black or brown localised deposits on the chimney or in the roof space.**
- **Soot on cobwebs in the loft. Due to the age of many thatched properties, built before the introduction of Building Regulations, the construction of chimneys can be highly unconventional.**
- **Period homes often have timber lintels over the fireplace and timber joists built into chimney stacks. These can be exposed to scorching when the protective layer inside the chimney disintegrates.**

Smoke Detectors

Warwickshire Fire & Rescue Service strongly recommends smoke detectors are installed in your properties.

The householder should ensure the following:

- **Fit a smoke detector on every floor of your home, ideally in the hallway and landing ceilings.**
- **Have smoke detectors in the loft space and link to others inside the house.**

Contractors

If you are having any work done on your house that will involve 'hot works' such as plumbing or paint stripping, make sure that the contractors are fully aware of the potential risk of a thatch fire.

Bonfires

It is always good practice to limit the number and location of any bonfires to reduce the risk of fire to your property. It is also a good idea to discuss this with any neighbours who have a bonfire near your property.



Checklist - Summary of Advice

- It is important to insulate the chimney flue to prevent the heat from transferring into the thatch layer. This is especially important when a solid fuel or wood burner is installed as they burn at higher temperatures than conventional open fires.
- Have the chimney swept regularly by a qualified chimney sweep. A chimney in regular use should be swept twice a year.
- Only burn seasoned wood.
- Have the chimney inspected by a qualified chimney engineer.
- If you have a spark arrestor fitted, clean it regularly. This should be done every three months on chimneys in regular use and the arrestor should be taken down to clean.
- Fit a bird guard to deter birds from building nests in chimneys.
- Smoke alarms should be installed throughout your home. If you have a loft space then an interlinked smoke alarm should be installed which is linked to at least one other within your home.
- Be careful when using blow torches or heat guns (if plumbing or painting, etc.).
- Restrict the use of bonfires near to your property.

Useful Contacts

Contact your local authority Building Control or Planning Office.

Communities and Local Government
www.firekills.gov.uk

English Heritage – Listed buildings/
graded properties
www.customers@englishheritage.org.uk

The National Society of Master
Thatchers (NSMT)
www.nsmiltid.co.uk

BCFMA (British Flue and Chimney
Manufacturers Association)
www.feta.co.uk

HETAS (Heating Equipment Testing
and Approval Scheme)
www.hetas.co.uk

NACE (National Association of
Chimney Engineers)
www.nace.org.uk

SFA (Solid Fuel Association)
www.solidfuel.co.uk

Although extensive research has been carried out, some of the findings are not conclusive and investigations and tests will continue regarding the cause of thatch fires.

For more information on thatch/chimney fire safety visit
www.warwickshire.gov.uk/firesafetycampaigns